

LONDON-WEST MIDLANDS ENVIRONMENTAL STATEMENT

Volume 5 | Technical Appendices

CFA23-26 Balsall Common to Curzon Street

Register of local level effects (EC-005-004)

Ecology

November 2013

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A report prepared for High Speed Two (HS2) Limited.

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1 Introduction

- 1.1.1 This document is an appendix which forms part of Volume 5 of the environmental statement (ES) for the Proposed Scheme. Table 1 provides a summary of anticipated local/parish level adverse effects on ecological receptors arising from the construction and operation of the Proposed Scheme for the following community forum areas (CFA):
 - CFA23: Balsall Common and Hampton-in-Arden;
 - CFA24: Birmingham Interchange and Chelmsley Wood;
 - CFA25: Castle Bromwich and Bromford; and
 - CFA26: Washwood Heath to Curzon Street.
- The document should be read in conjunction with Volume 2 (Community forum area reports), Volume 3 (Route wide effects assessment) and Volume 4 (Off-route effects assessment).

Table 1: Summary of local/parish level adverse effects arising from the construction/operation of the Proposed Scheme within CFA23, CFA24, CFA 25 and CFA 26

CFA	Habitat, species or species group	Receptor/location	Effect arising from construction or	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed (Yes/no)
CFA ₂₃	Scattered trees	Scattered trees within the land required for construction, including along the Rugby to Birmingham line south of Berkswell station; Truggist Lane east of Berkswell station	from operation? Construction	Permanent loss of trees as a result of construction of the proposed Beechwood embankment and Carol Green rail underbridge.	Yes Yes
CFA23	Plantation woodland	Mixed or coniferous plantation within the land required for construction of the Proposed Scheme, including Marlowes woodland, and adjacent to Park Lane	Construction	Permanent loss and fragmentation of woodland from construction of the proposed Park Lane cutting with reduction in area and quality of woodland.	Yes
CFA ₂₃	Scrub	Dense and scattered scrub vegetation within the land required for construction of the Proposed Scheme	Construction	Permanent loss of scrub with reduction in area of scrub.	Yes
CFA23	Species poor semi- improved and improved grassland	Grasslands within the land required for construction of the Proposed Scheme including south east of Berkswell Station, north of A ₄₅₂ Kenilworth Road and adjacent to River Blythe.	Construction	Permanent loss and fragmentation from construction, with reduction in habitat area and quality.	No
CFA23	Standing water bodies	Field ponds and floodplain pools within the land required for construction at several locations including Moat House Farm; west of A452 Kenilworth Road; and north of B4102 Meriden Road.	Construction	Permanent loss and reduction in area and quality of standing water bodies.	Yes
CFA23	Bayleys Brook	Section of watercourse within and outside the land required for construction at Balsall Common Viaduct and culverting at Lavender Hall Lane and A ₄ 52 Kenilwoth Road.	Construction	Culverting and permanent loss of a section of watercourse for construction of the proposed Balsall Common viaduct and Lavender hall Lane, leading to reduction in extent and quality of open watercourse. Realignment and creation of a new section of watercourse.	Yes
CFA23	Annual knawel	Potential population (desk study record) of this (plant) species of principal importance within the land required for construction at SP 23150 79250, north-west of The Roughs and south of Park Farm House.	Construction	Loss of habitats (arable fields) from construction of the proposed Park Lane cutting and potential reduction in local population size.	Yes
CFA ₂₃	Breeding birds	Breeding bird assemblage within the land required for construction between A452 Kenilworth Road, Park Lane and	Construction	Loss of habitat from construction of the proposed Park Lane cutting, and reduction in	Yes

CFA	Habitat, species or species group	Receptor/location	Effect arising from construction or from operation?	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed (Yes/no)
		Berkswell Marsh SSSI.		size of populations within the assemblage.	
CFA23	Breeding birds	Breeding bird assemblage within the land required for construction between A ₄₅₂ Kenilworth Road and B ₄₁₀₂ Meriden Road.	Construction	Loss of habitat from construction including the proposed Blythe Bypass embankment and Patrick cutting, and reduction in size of populations within the assemblage.	Yes
CFA23	Otter	Otter population using River Blythe and tributaries within and outside the land required for construction including Bayleys Brook and Shadow Brook.	Construction	Temporary reduction in habitat extent and quality and displacement from noise, vibration and visual disturbance associated with construction of the proposed River Blythe viaduct, Patrick embankment, Balsall Common viaduct and Shadow Brook viaduct.	Yes
		An active otter holt adjacent to the River Bltyhe	Construction	Temporary loss on an active otter holt which will be subsequently replaced in an appropriate location within the extent of the land required	Yes
CFA ₂₃	Hazel dormouse	Potential population of hazel dormouse within the land required for construction amongst woodland and hedgerow habitats east of A452 Kenilworth Road, including Marlowes woodland.	Construction	Permanent loss and fragmentation of habitat from construction of the proposed Park Lane cutting, with potential reduction in population size if this species were present.	Yes
CFA23	Reptiles	Population of common lizard within the land required for construction at Sixteen Acre wood and potential population(s) of common reptile species at Berkswell SSSI and surrounding land.	Construction	Loss and fragmentation of habitat and reduction in population size and distribution from construction of the proposed Park Lane cutting and Sixteen acre Wood embankment.	Yes
CFA23	Amphibians	Populations of common toad, common frog and smooth newt north-west of Lavender Hall Farm, within and outside land required to construct the Proposed Scheme.	Construction	Loss/disturbance of ponds and terrestrial habitat to the north west of Lavender Hall Farm. Reduction in population sizes and distribution.	No
CFA ₂₃	Amphibians	Metapopulations of common toad and common frog at Lavender Hall Fisheries, within and outside land required to construct the Proposed Scheme.	Construction	Loss and fragmentation of terrestrial habitats at lavender Hall Fisheries. Loss of a potential breeding pond at lavender Hall Fisheries.	No

CFA	Habitat, species or species group	Receptor/location	Effect arising from construction or from operation?	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed (Yes/no)
				Reduction in population sizes and distribution.	
CFA23	Amphibians	Metapopulations of common frog and smooth newt to the south of Baulk Lane, within and outside land required to construct the Proposed Scheme.	Construction	Loss of terrestrial habitats to the south of Baulk Lane. Loss of a breeding pond to the south of Baulk Lane. Reduction in population sizes and distribution.	Yes
CFA23	Amphibians	Populations of toad, frog and smooth newt south of Pasture Farm, within and outside land required to construct the Proposed Scheme.	Construction	Loss and fragmentation of terrestrial habitats to the north of Pasture Farm. Reduction in population sizes and distribution.	Yes
CFA ₂₃	Amphibians	Metapopulations of frog and smooth newt south of Berkswell Station, within and outside land required to construct the Proposed Scheme.	Construction	Loss and fragmentation of terrestrial habitats to the south east of Berkswell Station. Reduction in population sizes and distribution.	Yes
CFA23	Aquatic macro- invertebrates	Assemblages of aquatic macro-invertebrates associated with standing and running water within land required adjacent to Kenilworth Greenway and adjacent to the Rugby to Birmingham railway; ponds adjacent to Bayleys Brook and north of Truggist Lane near Lavender Hall fisheries.	Construction	Permanent loss of and fragmentation of habitats from construction within area at Beechwood Farm and Truggist lane and proposed Lavender hall embankment, leading to reduction in population sizes and assemblage diversity.	Yes
CFA ₂₃	Aquatic macro- invertebrates	Assemblages of aquatic macro-invertebrates associated with standing water on land within the land required for construction adjacent to River Blythe at Mouldings Green Farm, Hampton-in-Arden LWS	Construction	Permanent loss of and fragmentation of habitats from construction of the proposed River Blythe viaduct and embankments, leading to reduction in population sizes and assemblage diversity.	Yes
CFA23	Terrestrial invertebrates	Assemblages of terrestrial invertebrates within and outside the land required for construction of the Proposed Scheme, in woodland and semi-improved and marshy grassland habitats, including assemblage of species with local distribution on land west of Meriden Hill Farm.	Construction	Permanent loss and fragmentation of habitats and reduction in size of populations and assemblage diversity.	Yes
CFA23	Badger	At least 9 social groups of badger at undisclosed locations partly or wholly within the land required for construction of the	Construction	Permanent loss of woodland arable and grassland foraging habitat and potential	Yes

CFA	Habitat, species or species group	Receptor/location	Effect arising from construction or from operation?	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed (Yes/no)
		Proposed Scheme.		reduction in local population size and distribution.	
CFA23	Bats	Eleven confirmed bat roosts, represented by common pipstrelle, soprano pipistrelle and brown long-eared bats, in trees within or adjacent to land required for construction of the Proposed Scheme. All roosts were of small numbers of more common species: common pipistrelle, soprano pipistrelle and Daubenton's bat. Roosts were mainly considered to be day roosts and also included a potential common pipistrelle mating roost. Also a number of trees were assessed to have high/moderate potential for roosting bats (not confirmed roosts).	Construction	Roosts lost to the scheme and/or disturbed by construction activities with potential reduction in population size and distribution. Permanent loss of up to 63 trees with roosting potential, limiting population growth or potential reduction in population sizes and distribution.	Yes
CFA23	Bats	Populations of brown long-eared bat, common pipistrelle, soprano pipistrelle, Myotis sp., and noctule using land in the vicinity of Baulk Lane, the woodland on the north side of Park Lane, Marlowes Wood, Sixteen Acre Wood, the large pond north-west of Lavender Hall Lane and along Bayleys Brook.	Construction	A reduction in suitable foraging habitat from construction of the proposed Park Lane cutting, as well as disturbance to and disruption of foraging and commuting routes used by local populations of each of these species, with potential reduction in population sizes and distribution.	Yes
CFA23	Bats	Populations of more common species (common pipistrelle, soprano pipistrelle, noctule and Myotis sp.) on land in vicinity of River Blythe and east of Marsh Lane Nature Reserve, within and outside land required to construct the Proposed Scheme.	Construction	Disturbance to and disruption of foraging and commuting routes from construction of the proposed Patrick embankment used by local populations of each of these species, with potential reduction in population sizes and distribution.	Yes
CFA23	Bats	Populations of more common species (common pipistrelle, soprano, pipistrelle, Daubenton's, brown long-eared bat, noctule and Myotis sp.) in the vicinity of Shadow Brook and Diddington Farm, within and outside land required to construct the Proposed Scheme.	Construction	Loss of habitat and disturbance from construction, and disruption of foraging and commuting routes used by local populations of each of these species, with potential reduction in population sizes and distribution.	Yes

CFA	Habitat, species or species group	Receptor/location	Effect arising from construction or from operation?	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed (Yes/no)
CFA ₂₃	Bats	Populations of more common species (common pipistrelle, soprano pipistrelle, noctule and Myotis sp.) on land in vicinity of Kenilworth Greenway, within and outside land required to construct the Proposed Scheme.	Construction	Loss of habitat and disturbance from construction, and disruption of foraging and commuting routes used by local populations of each of these species, with potential reduction in population sizes and distribution.	Yes
CFA ₂₃	Bats	Serotine bat commuting and foraging on land to the east of the A452 Kenilworth Road and north of Lavender Hall Lane, within and outside land required to construct the Proposed Scheme.	Construction	The construction of Park Lane Cutting will lead to a reduction in suitable foraging habitat, and the potential fragment and degradation of dispersal corridors used by serotine bat with potential reduction in population size and distribution.	Yes
CFA23	Daubenton's bat	A population of Daubenton's bat using habitats for foraging and commuting east of Lavender Hall Farm, within and outside land required to construct the Proposed Scheme.	Construction	Loss of habitat and disturbance from construction, and disruption of foraging and commuting routes used by this species, with potential reduction in population size and distribution.	Yes
CFA ₂₃	Bats	Nyctalus sp. at Kenilworth Greenway.	Construction	Loss of habitat and disturbance from construction, and disruption of foraging and commuting routes used by this species, with potential reduction in population size and distribution.	Yes
CFA23	Bats	Populations of Nyctalus sp., and Leisler's bat within the survey extent of this section of the Proposed scheme in the vicinity of the River Blythe SSSI, east of Marsh Lane Nature Reserve; Baulk Lane, the woodland on the north side of Park Lane; Marlowes Wood; Sixteen Acre Wood; the large pond north-west of Lavender Hall Lane; and along Bayleys Brook.	Construction	Disturbance to and disruption of foraging and commuting routes, including broadleaved seminatural woodland and hedgerows, used by local populations of each of these species	Yes
CFA24	Notable plant species	Assemblage of notable plants including 4 Warwickshire rare species at Park Farm within the land required for construction.	Construction	Permanent and temporary loss of habitat for construction in the area of the proposed Birmingham Interchange and associated	Yes

CFA	Habitat, species or species group	Receptor/location	Effect arising from construction or from operation?	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed (Yes/no)
				infrastructure, which supports these species, with consequent reduction in local population sizes and distribution.	
CFA24	Mature trees	Scattered trees within the land required for construction of the Proposed Scheme.	Construction	Permanent reduction in number of trees.	Yes
CFA24	Woodland	Areas of broadleaved and plantation woodland including along Hollywell Brook; east of Park Farm; and within the interchange area of the A452 and A446	Construction	Permanent reduction in area of woodland and increased fragmentation leading to reduction in habitat quality.	Yes
CFA24	Scrub	Dense and scattered scrub within the land required for construction of the Proposed Scheme and along watercourses.	Construction	Permanent reduction in area of dense and scattered scrub and increased fragmentation leading to reduction in habitat quality.	No
CFA24	Species poor semi- improved and improved grassland	Large areas within the land required for construction of the Proposed Scheme particularly around the proposed Birmingham interchange complex	Construction	Temporary and permanent reduction in area of poor semi-improved and improved grassland.	No
CFA24	Tall Herb	Tall herb vegetation within the land required for construction of the Proposed Scheme north of Coleshill Pool Wood LWS and adjacent to Quartz Point Business Centre	Construction	Permanent reduction in area of tall ruderal vegetation and increased fragmentation leading to reduction in habitat quality.	Yes
CFA24	Marginal vegetation	Marginal vegetation alongside Hollywell Brook alongside land required for the construction of the Proposed Scheme around the proposed Birmingham Interchange complex	Construction	Temporary reduction in area of marginal vegetation due to realignment of the brook for cosntruction of the Hollywell brook Underbridge, and other construction works and increased fragmentation leading to reduction in habitat quality.	Yes
CFA24	Reptiles	Small population of grass snake in the Park Farm area within the land required for construction of the Proposed Scheme.	Construction	Temporary loss of area of habitat for grass snake from construction of the proposed Birmingham Interchange and associated infrastructure, with consequent reduction in population size and distribution.	Yes

CFA	Habitat, species or species group	Receptor/location	Effect arising from construction or from operation?	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed (Yes/no)
CFA24	Reptiles	Small population of slow worm on the eastern verge of the A446 Stonebridge Road, within land required to construct the Proposed Scheme.	Construction	Permanent loss of area of habitat for slow worm with consequent reduction in population size and distribution.	Yes
CFA24	Otter	Loss of habitat within land required to construct the Proposed Scheme, including a potential holt site during construction of the proposed Hollywell Brook underbridge.	Construction	Temporary reduction of otter activity and habitat and potential displacement to other sites within the Blythe catchment, with potential reduction in population size and distribution.	Yes
CFA24	Leisler's bat	Leisler's bat in the vicinity of Park farm and the Hollywell Brook, within and outside land required to construct the Proposed Scheme.	Construction	Permanent loss of foraging habitat from construction of the Birmingham interchange and associated infrastructure, and displacement to similar habitats adjacent to land required for the construction of the Proposed Scheme with potential reduction in population size and distribution.	Yes
CFA24	Leisler's bat	Leisler's bat in the vicinity of Park farm and the Hollywell Brook, within and outside land required to construct the Proposed Scheme.	Operation	A precautionary approach assumes that some Leisler's bats may fly low over the proposed Hollywell Brook underbridge and be vulnerable to mortality from turbulence or collision with trains, with potential change to composition, size and diversity of the population.	No
CFA24	Serotine	Serotine bat using foraging and commuting habitats within and outside land required to construct the Proposed Scheme and around habitats at Park Farm and Hollywell Brook.	Construction	Permanent loss of foraging habitat and displacement to similar habitats adjacent to land required for the construction of the proposed Birmingham Interchange and associated infrastructure with potential reduction in population size and distribution.	Yes
CFA24	Serotine	Serotine in the vicinity of Park Farm and the Hollywell Brook, within and outside land required to construct the Proposed Scheme.	Operation	A precautionary approach assumes that some serotines may fly low over the proposed Hollywell Brook underbridge and be vulnerable	No

CFA	Habitat, species or species group	Receptor/location	Effect arising from construction or from operation?	Description of effect prior to 'other mitigation' to mortality from turbulence or collision with trains with potential reduction in population size.	Effect addressed by mitigation and/or compensation proposed (Yes/no)
CFA24	Barn Owl (Wintering)	Barn owl using habitats for winter foraging within land required to construct the Proposed Scheme around Park Farm.	Construction	Permanent loss of foraging habitat from construction of the proposed Birmingham Interchange and associated infrastructure, and displacement to similar habitats adjacent to land required for the construction of the Proposed Scheme, with potential reduction in population size and distribution.	Yes
CFA24	Wintering birds	A wintering bird assemblage at Park Farm within land required for the construction of the Proposed Scheme in the area of the Birmingham Interchange.	Construction	Permanent loss of foraging habitat and displacement to similar habitats adjacent to land required for the construction of the proposed Birmingham Interchange and associated infrastructure, with reduction in size and diversity of the assemblage.	No
CFA24	Terrestrial invertebrates	Assemblage of terrestrial invertebrates within land required for construction of the Proposed Scheme along Hollywell Brook.	Construction	Disruption to riparian corridor and at least temporary loss of habitat from the proposed Hollywell brook realignment and construction of the proposed Bickenhill embankment, with reduction in size and diversity of the assemblage.	Yes
CFA24	Breeding birds	A breeding bird assemblage associated with farmland habitats at Park Farm within land required for the construction of the Proposed Scheme.	Construction	Permanent loss of nesting and foraging habitat from construction of the proposed Birmingham Interchange and associated infrastructure, with changes to composition, and reduction in size and diversity of the assemblage.	No
CFA24	Breeding birds	A breeding bird assemblage at Brickfield Farm within land required for the construction of the Proposed Scheme.	Construction	Permanent loss of nesting and foraging habitat from construction of the proposed Pool Wood embankment with change to composition, and reduction in size and diversity of the	Yes

CFA	Habitat, species or species group	Receptor/location	Effect arising from construction or from operation?	Description of effect prior to 'other mitigation' assemblage.	Effect addressed by mitigation and/or compensation proposed (Yes/no)
CFA24	Barbastelle	Low level of barbastelle activity was recorded only at Coleshill and Bannerly Pools SSSI outside land required for the construction of the Proposed Scheme. A precautionary approach assumes that barbastelle may currently cross the M42 towards Coleshill Pool Wood LWS within the land required for the construction of the Proposed Scheme. Coleshill Pool Wood LWS represents a relatively small area of potentially suitable barbastelle habitat on the western periphery of a much larger range to the east of the Proposed Scheme.	Operation	If barbastelle is present there is a risk of mortality from turbulence or collision with trains in the vicinity of the proposed Pool Wood embankment.	No
CFA24	Common pipistrelle	Small population of common pipistrelle roosting in Park Farm, outside land required to construct the Proposed Scheme.	Construction	Disturbance to and disruption of foraging and commuting habitat from construction of the proposed Birmingham Interchange and associated infrastructure, with consequent reduction in population size.	Yes
CFA24	Common pipistrelle	Small population of common pipistrelle roosting in buildings at Park Farm, outside land required to construct the Proposed Scheme.	Operation	Increased isolation of roosts within predominantly built environment; disturbance to and disruption of foraging and commuting habitat of bats roosting close to the proposed Birmingham Interchange and associated infrastructure, with consequent reduction in population size.	No
CFA24	Bats	Trees assessed to have high/moderate potential for roosting bats (not confirmed roost), within land required to construct the Proposed Scheme.	Construction	Permanent loss of up to 37 trees with roosting potential, reducing future roost availability, limiting population growth or reducing population sizes.	No
CFA24	Bats	Small population of common pipistrelle roosting in houses at Middle Bickenhill Lane, outside land required to construct the Proposed Scheme.	Construction	Disturbance to and disruption of foraging and commuting habitat from construction of the proposed Birmingham Interchange and associated infrastructure with consequent	Yes

CFA	Habitat, species or species group	Receptor/location	Effect arising from construction or from operation?	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed (Yes/no)
				reduction in population size.	
CFA24	Bats	Small population of common pipistrelle roosting in houses at Middle Bickenhill Lane, outside land required to construct the Proposed Scheme.	Operation	Operational impact associated with lighting around the proposed Birmingham Interchange, reducing habitat quality, with consequent future reduction in population size.	Yes
CFA25	Scattered trees	Scattered trees within the land required for construction of the Proposed Scheme at Park Hall SINC and along watercourses and road verges elsewhere.	Construction	Permanent loss and reduction in number of scattered trees from construction of the Proposed Scheme.	Yes
CFA25	Hedgerows	Species poor hedgerow within the land required for construction of the Proposed Scheme at Park Hall SINC.	Construction	Permanent loss and reduction in extent of species-poor hedgerow from construction of the Proposed Scheme.	Yes
CFA25	Scrub	Dense and scattered scrub within the land required for construction of the Proposed Scheme at Park Hall SINC and also along watercourses.	Construction	Permanent loss and reduction in extent of dense and scattered scrub from construction of the Proposed Scheme.	Yes
CFA25	Species poor semi- improved grassland	Species -poor semi-improved grassland within the land required for construction of the Proposed Scheme at Park Hall SINC.	Construction	Permanent loss and reduction in extent of species-poor semi-improved grassland from construction of the Proposed Scheme.	No
CFA25	Tall ruderal vegetation	Tall herb vegetation within the land required for construction of the Proposed Scheme at Park Hall SINC and the banks of the River Tame and within the railway triangle north of Park Hall SINC.	Construction	Permanent loss and reduction in extent of tall ruderal vegetation from construction of the Proposed Scheme.	No
CFA25	Bats	Medium size population of common pipistrelle within land required for construction of the Proposed Scheme at Park Hall SINC.	Operation	Permanent effect on the conservation status of the local common pipistrelle population, through collisions with passing trains or associated turbulence at the proposed Park Hall Wood embankment.	No
CFA25	Reptiles	A small population of grass snake within the land required for construction of the Proposed Scheme at Park Hall SINC and	Construction	Permanent and temporary loss sand fragmentation of habitat which supports grass snake, with consequent reduction in local	Yes

CFA	Habitat, species or species group	Receptor/location	Effect arising from construction or	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation
			from operation?		proposed (Yes/no)
		within the railway triangle north of Park Hall SINC.	nom operation.	population size.	proposed (resymo)
CFA ₂₅	Badger	Single social group of badgers at an undisclosed location.	Construction	Permanent loss of one main sett and one outlier sett, as well as the permanent loss of habitat which supports this species.	Yes
CFA25	Birds	Breeding bird assemblage at Park Hall SINC (excluding kingfisher, garden warbler and grasshopper warbler).	Construction	The permanent loss of tall ruderal vegetation, species-poor grassland and semi-natural broadleaved woodland, swamp and reed bed habitats which support this assemblage of bird species.	No
CFA ₂ 6	Scattered trees	Scattered trees within the land required for construction of the Proposed Scheme adjacent to the Birmingham and Derby line, Washwood Heath depot and Park Street Gardens.	Construction	Permanent loss and reduction in number of trees from construction of the Proposed Scheme.	Yes
CFA ₂ 6	Species-poor hedgerows	Species-poor hedgerows within the land required for construction of the Proposed Scheme at River Rea and adjoining land SLINC, Grand Union Canal SLINC and Digbeth Branch Canal SLINC.	Construction	Permanent loss of species-poor hedgerow and fragmentation of the hedgerow network, with consequent reduction in extent and quality of hedgerow.	Yes
CFA ₂ 6	Open Mosaic Habitat	Potential open mosaic habitats including bare ground, sparse vegetation and tall ruderal vegetation within land required for the proposed Washwood Heath depot. Recently cleared land could also develop into this habitat mosaic type in future, prior to construction.	Construction	Loss of habitat and increased habitat fragmentation from construction of the proposed Washwood Heath depot, with consequent reduction in habitat extent and quality.	No
CFA ₂ 6	Scrub	Dense and scattered scrub within the land required for construction of the Proposed Scheme at River Rea and adjoining land SLINC and Grand Union Canal SLINC.	Construction	Permanent loss of dense and scattered scrub, with consequent to reduction in habitat extent and quality	No
CFA ₂ 6	Species-poor semi- improved and amenity grasslands	Species-poor semi-improved and amenity grasslands within the land required for construction of the Proposed Scheme, including at the proposed Curzon Street Station.	Construction	Permanent loss of species-poor semi-improved and amenity grassland from construction, with reduction in extent of this habitat type.	No

CFA	Habitat, species or species group	Receptor/location	Effect arising from construction or from operation?	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed (Yes/no)
CFA ₂ 6	Standing Water	Loss of concrete-line water bodies within land required to construct the Proposed Scheme	Construction	Loss of water bodies and reduction in extent of standing water habitat.	Yes
CFA ₂ 6	Buildings	Buildings to be demolished within the land required for construction of the Proposed Scheme at various locations including the Curzon Street Viaduct.	Construction	Permanent loss of buildings with consequent reduction in extent of this habitat type.	Yes
CFA ₂ 6	Kidney Vetch	Population of kidney vetch (uncommon in West Midlands) occurs within the complex of land ownerships contained within the area of land identified for the proposed Washwood Heath depot.	Construction	Loss of habitat with consequent loss or reduction in population size.	Yes
CFA ₂ 6	Terrestrial invertebrates	Assemblage of terrestrial invertebrates within the land required for construction.	Construction	Permanent and temporary loss of habitat for terrestrial invertebrates.	Yes
CFA ₂ 6	Reptiles	Possible population(s) of common reptile species on land around Nechells Gas Holders and at Warren Road SLINC.	Construction	Loss of habitat from construction of the proposed Washwood Heath rail overbridge and River Rea overflow channel diversion, with consequent reduction or loss of local population(s).	Yes
CFA ₂ 6	Bats	A population of common pipistrelle associated with Common Lane.	Construction	Loss of foraging and commuting habitats from construction of the proposed Washwood Heath depot, and potential reduction in population size.	Yes